

Translation

PATENT COOPERATION TREATY

PCT/JP2004/009718



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 04PCFP1007	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2004/009718	International filing date (day/month/year) 08 July 2004 (08.07.2004)	Priority date (day/month/year) 11 July 2003 (11.07.2003)
International Patent Classification (IPC) or national classification and IPC H03K 17/16, 17/30, H04L 25/02, H03M 5/20		
Applicant PIONEER PLASMA DISPLAY CORPORATION		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☒ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 09 December 2004 (09.12.2004)	Date of completion of this report 27 May 2005 (27.05.2005)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. IV Lack of unity of invention

1. ☐ In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

Claims 1-16 describe an invention relating to "data transmission circuit," claims 17, 20, 27 and 29 describe an invention relating to "output circuit" in itself, and claims 21-26, 28 and 30 describe an invention relating to "input circuit" in itself; therefore, there is no special technical feature common to each invention.

This examination finds that claims 1-16 relate to data transmission, claims 17-20, 27, and 29 to output circuit in itself, and claims 21-26, 28 and 30 to input circuit in itself; therefore, the number of inventions described in claims of this international application is three.

4. Consequently, this report has been established in respect of the following parts of the international application:

- ☒ all parts.
- ☐ the parts relating to claims Nos. _____

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-16, 18-30	YES
	Claims	17	NO
Inventive step (IS)	Claims		YES
	Claims	1-30	NO
Industrial applicability (IA)	Claims	1-30	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

[Document 1] JP, 2001-156621, A (Toshiba Corporation), June 8, 2001 (06.08.01), see Figs. 1 and 11
 [Document 2] JP, 05-063574, A (NEC Corporation), March 12, 1993 (03.12.93), see Fig. 2, Paragraphs 0012 and 0013 (Family: none)
 [Document 3] JP, 03-216023, A (Yokokawa Electric Corporation), September 24, 1991 (09.24.91), see Fig. 3, Page 2, lower left column, line 19-page 3, upper left column, line 1 (Family: none)

- Claims 1-16, 27 and 29

The inventions of claims 1-16, 27 and 29 do not appear to involve an inventive step based on documents 1-3.

In other words, the ADC described in cited document 1 could be easily conceived of by adopting the flash ADC in the current mode described in document 2 or 3.

- Claim 17

The invention of claim 17 does not appear to be novel or involve an inventive step based on document 1.

In other words, document 1 describes the DAC described in the present claims.

- Claims 18-20, 27 and 29

The inventions of claims 18-20, 27 and 29 do not appear to involve an inventive step based on document 1.

In other words, in general, comprising a plurality of current mirror circuits for creating a plurality of current sources, and switching the reference side of the current mirror circuits as on/off of the current sources are extremely conventional technologies. Applying the present technology to the DAC described in document 1 to achieve the invention such as described in the present claims is mere design variation and a matter that could be easily conceived of by a party skilled in the art.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of Box V:

- Claims 21-26, 28 and 30

The inventions of claims 21-26, 28 and 30 do not appear to involve an inventive step based on document 2 or 3.

In other words, in general, a voltage input type decoder is well known as a decoder. Using the present decoder as the flash ADC decoder in the current mode of document 2 or 3, and merely comprising a current-voltage converter circuit for an interface in response thereto are mere design variations and matters that could be easily conceived of by a party skilled in the art.